

Results

The best endothelin crystals were well formed hexagonal prisms of maximum length 400 μm and widths of 150 μm . Larger crystals were observed but these were generally twinned about the sixfold axis. Precession photography showed the reciprocal lattice to have $6mm$ symmetry and all $00l$ reflections to be systematically absent except those for which $l = 6n$. The space group is therefore $P6_122$, or its enantiomorph $P6_522$, and the unit-cell dimensions are $a = 27.4$, $c = 79.8$ \AA .

The volume of the unit cell is 5.06×10^4 \AA^3 and if one assumes one molecule of endothelin, $M_r = 2460$, as the asymmetric unit, the volume-to-mass ratio for these crystals is 1.71 \AA^3 per dalton. This value is near the low end, but well within the range observed for most protein crystals (Matthews, 1968). It is particularly reasonable for small proteins and peptides that might be expected to contain less solvent in proportion to protein mass and it represents a solvent volume of about 30%.

As already noted, the crystals diffract to beyond 1.8 \AA resolution in their present state and very likely would

produce data to higher resolution were they larger. The crystals do not decay at an unreasonable rate and we can normally collect several complete data sets from a single crystal.

Using our current data we are attempting to determine the three-dimensional structure of endothelin by a variety of techniques including molecular searches with model structures, direct methods and conventional MIR techniques.

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References

- ANGGARD, E. E., BOTTING, R. M. & VANE, J. R. (1990). *Blood Vessels*, **27**, 269–281.
 MCPHERSON, A. (1990). *Eur. J. Biochem.* **189**, 1–23.
 MASAKI, T. (1989). *J. Cardiovasc. Pharm.* **13** (Suppl. 5), 51–54.
 MATTHEWS, B. W. (1968). *J. Mol. Biol.* **33**, 491–497.
 VANE, J. (1990). *Nature (London)*, **348**, 673–674.

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Structure refinement of commensurately modulated bismuth tungstate, Bi_2WO_6 . Erratum. By A. DAVID

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Abstract

Owing to a printer's error, Fig. 7 of the paper by Rae, Thompson & Withers [*Acta Cryst.* (1991), **B47**, 870–881] was published in the wrong orientation. The correct Fig. 7 is given.

All relevant information is given in the *Abstract*.

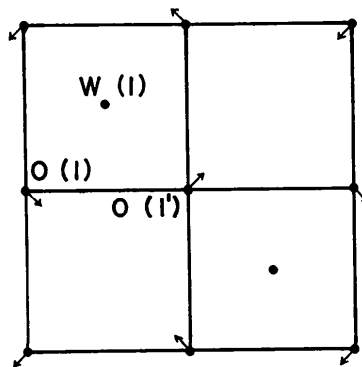


Fig. 7. The *Abam* displacive mode showing the 90° rotation of WO_6 octahedra about axes parallel to *c*. This mode can be either *A*-centred (*Abam* symmetry) or *B*-centred (*Bbam* symmetry). The majority component has *Abam* symmetry.